

Our Plan of Action for a Sustainable Energy Future
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Panel 1: Energy Services and the MDGs –
The Role of Renewable Energies and Energy Efficiencies
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Dear Co-Chairs, Ministers, Honorable Delegates,

Let me thank the German organizers for their hospitality extended to all the participants, and the German Government for taking international leadership on one of the most important issues of our time: renewable energy.

In this presentation I would like to address why we think that renewable energy matters for developing countries, and what we are doing in the area of renewable energy.

1. Energy for Development

Let me start with what is obvious: energy matters for development, including for the fulfilment of the Millennium Development Goals.

- Energy matters – especially to the 1.6 billion people who lack access to modern energy services.
- Energy matters for all the nations who need least cost and reliable energy services to sustain their economic growth and social development.
- Along with fossil energy sources, renewable energy can significantly contribute to scaling services which will enhance the quality of people's lives, and therefore influence the answers to questions such as
 - How to increase food availability?
 - How to improve the provision of safe water to drink?
 - How to provide a healthy and safe environment for children?
 - How to enable people to read and write and make themselves heard?
 - How to create more employment and raise incomes?
- ***Energy is a key ingredient to all activities:*** all the production and trade, innovation, and social communication that are part of being human.

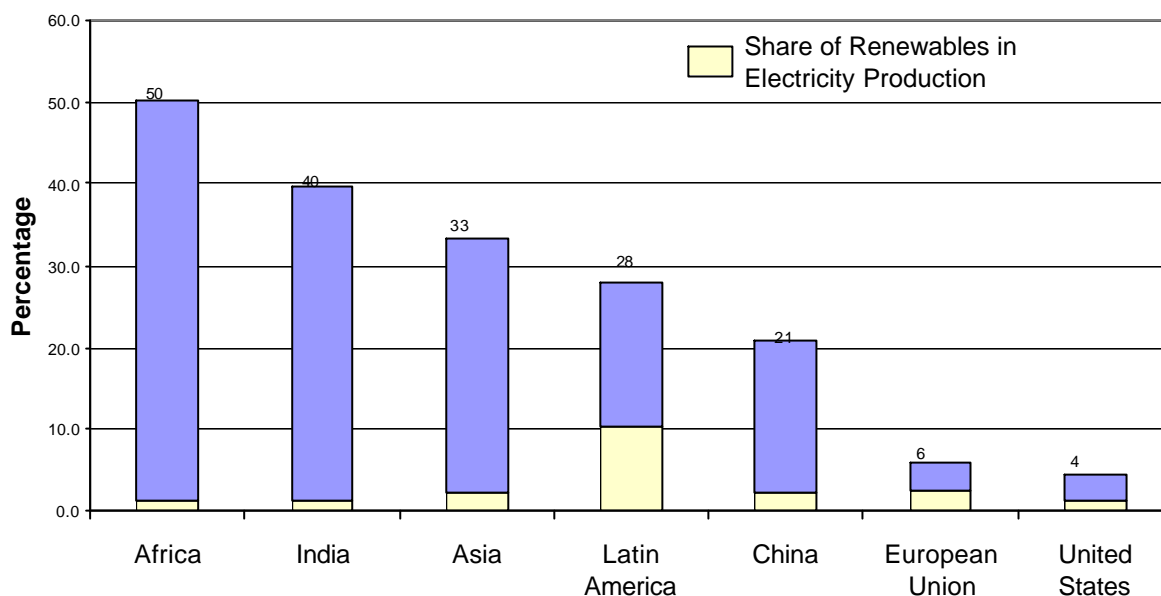
2. Renewable Energy Matters

We need to pursue renewable energy and energy efficiency in the developing world for at least three key reasons: for development, for energy security, and for the environment.

- ***Development*** – Reducing poverty on a sustainable basis means giving people access to adequate, affordable, reliable and sustainable energy services, and this must be linked in a meaningful way to their economic and social development needs.
 - Billions will continue to depend on biomass-based fuels for cooking and heating. The production of such fuels must be made more sustainable; their use must be made safer health-wise, and more efficient and less costly. This is important especially for those women and children who today are subject to hazardous indoor air pollution.
 - Off-grid electricity solutions based on renewables can assist highly dispersed rural populations with relatively low income and demand levels in gaining access to

high share of electricity from renewable energy reflects the importance of hydropower generation in that region (see the figure below).

**Share of Renewable Energy in Total Primary Energy Supply
Year 2001**



- The G8 Task Force on renewable energy suggests that more than 70 percent of the potential for renewable energy are on-grid applications in developed countries. More than 20 percent of the potential for renewable energy are on-grid applications in developing countries, and less than 10 percent of the renewable energy supply are off-grid applications.

4. What Types of Energy are we talking about?

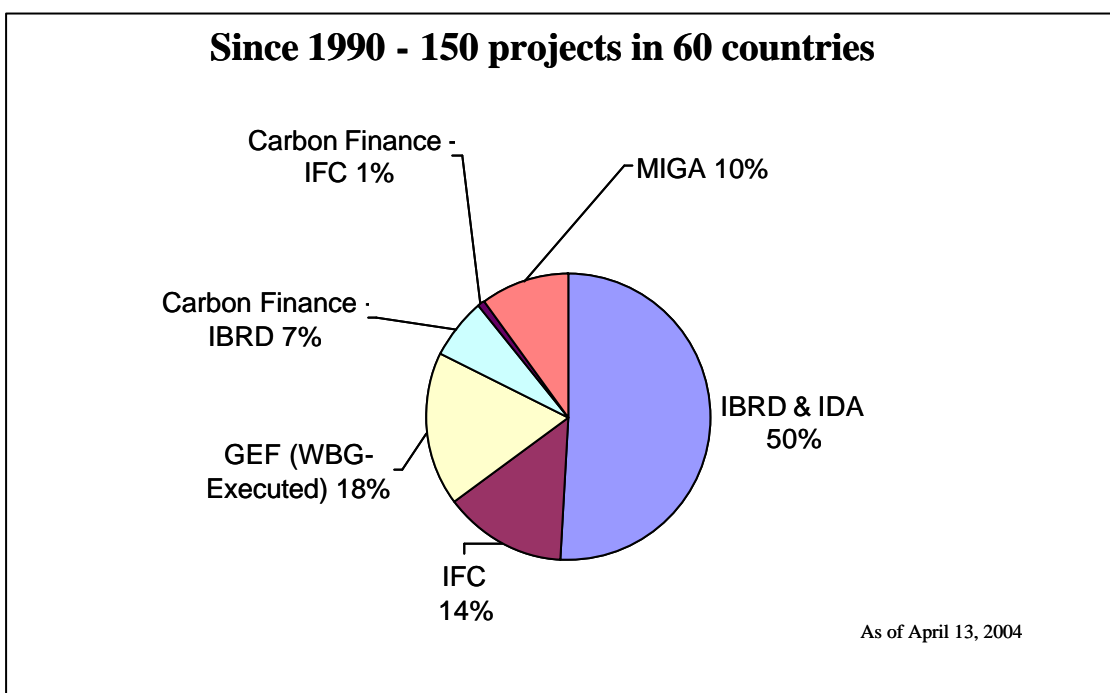
- The World Bank Group believes that it is fundamental to address energy efficiency in any discussion on renewable energy. Energy efficiency will help
 - poor people reduce their expenditures on energy services,
 - improve indoor air pollution
 - improve SME's competitiveness as they will reduce their energy bills
 - lower the energy price to end users,
 - mitigate the local and global environmental concerns in developing countries.
- The World Bank Group is committed to supporting all forms and scales of renewable energy. The questions we need to ask are: Is it economic? Is its development and use, environmentally and socially sound?

5. WBG Renewable Energy & Energy Efficiency Commitments: 1990-'04 - \$US 6 billion of "new" renewables

- The World Bank Group has a track record of significant support for sustainable energy and is committed to continued growth of this support. To date, we are one of the largest

financier of renewable energy and energy efficiency in developing countries among the IFIs. Our portfolio is greener and cleaner than the world average.

- Renewable Energy and Energy Efficiency represents about 14% of the World Bank's (IBRD and IDA) annual power sector portfolio (compared to only 4% in 1990), and 20% of the IFC's power sector portfolio today. This is higher than comparable percentages in OECD countries.
- We have committed US\$ 6 billion for renewable energy & energy efficiency since 1990.
- The World Bank and IFC have pioneered the development of the carbon market, which supports renewables and energy efficiency in non-OECD countries, and has currently about US\$ 465 million under management since operation began in 2000.



6. Lessons of Experience

Foucault says that “experience is what old people call their past mistakes”. We have made mistakes in the past, and we have learned from them. But there are also positive experiences from which we can learn.

- Supporting renewable energy and energy efficiency for the World Bank Group means helping our partner countries access the most cost-effective, best-performing, and reliable energy technologies that they can afford. Put differently, *renewable energy technologies should not be force-fitted on developing countries where they are not economic.*
- We have drawn many lessons since we began activities in the area of renewable energy and energy efficiency. Three key lessons are:
 - Establishing an institutional, policy, financial and regulatory framework is essential to large-scale renewable energy development, and helps attract capital.
 - Accessible and affordable financing for energy enterprises, energy investments, and consumer financing is key for success.
 - Be driven from what makes sense both economically and socially at the local level, not by technology.

7. Business as Usual is Unacceptable

- Populations are growing rapidly. In 25 years, business-as-usual energy scenarios project that even after an expenditure of US\$16 trillion on energy investments (of which half will be in developing countries), 1.4 billion people will still lack access to electricity. This is a reduction of only 200 million people from today. Over 2.6 billion people in developing countries will continue to rely on traditional forms of biomass for cooking and heating in 2030, even more than today. This scenario expects renewable energy share to increase from 2 percent to 4 percent between 2000 and 2030.
- Under this scenario, by 2030, the more than doubling of coal, oil and gas consumption will lead to increases in greenhouse gas emissions from the energy sector. The impacts will affect the developing countries the most, and hence render the poor even more vulnerable.
- Projected impacts are increased deaths and risk of infectious disease epidemics; increased floods, mudslides and coastal and soil erosion; increased property and infrastructure damage; decreased crops, higher crop damages and a general drop in agricultural productivity.

8. Bridging the Enormous Financing Gap

- **It is estimated that about \$7 billion per year in higher incremental investments are needed if renewable energy is to make significant contribution to developing countries energy needs**
- Traditionally, the development of 'new' renewable energy has been supported through *donor-pledged support*. The capacity to raise funds is thereby clearly limited. We estimate that donor assistance for renewable energy is of the order of \$1 billion annually. We were extremely pleased to hear the increased commitment of Euro 500 million towards renewable energy by Germany. ***Enhanced lending by WBG and other IFIs and donors help – Despite this, more than an 80 percent financing gap still remains.***
- ***Market mechanisms*** are needed to leverage much higher amounts than a mere donor-induced investments and bring us closer to closing the finance gaps. We are seeing that carbon financing can leverage 5-6 times its value in investment financing. We must also find ways to mobilize domestic savings to meet the investment needs – such savings are significant – in 2001 it ranged from nearly \$ 60 billion in Africa to over \$700 billion in East Asia. To achieve this, effective policy and regulatory frameworks are needed and market distortions that inhibit growth of renewable energy and energy efficiency markets such as subsidies for fossil fuels must be removed.

9. The World Bank Group's Commitment

- As our managing director noted yesterday, the World Bank Group is committed to increase its financing commitments to renewable energy and energy efficiency by an average of 20% per year over the next five years. We expect that this will lead to a two-to threefold increase in average annual commitments by 2010 from about \$200 million per year in average commitments over the last three to five years to over \$400 million..
- To achieve this goal, we are committed to enhance staff capabilities, improve knowledge access, help countries' integrate renewable energy in national strategy documents, among others.

- **We are committed to work in partnership with our member countries and with organizations such as the GEF and with bilateral donors to help meet the global challenge.**
- The global community demands no less of us. We demand no less of ourselves.

10. Global Challenge Needs a Global Response

- The World Bank Group has, and is prepared to work in a global partnership with all stakeholders—public and private, and civil society—to achieve nothing less than a revolution in the rate and scale with which sustainable clean energy services (both renewable and energy efficiency) are expanded to those who lack them.